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HENRY GANNETT

PRESIDENT OF THE

NATIONAL GEOGRAPHIC SOCIETY

1910-1914



By

S. N. D. NORTH

THE NATIONAL GEOGRAPHIC SOCIETY

1915

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HENRY GANNETT

President of the National Geographic Society, 1910-1914

HENRY GANNETT

HENRY GANNETT, one of the founders of the National Geographic Society and its fifth President, often called "the father of American map-making," died in Washington on November 5, 1914. In his passing we parted with the man who did more than any contemporary to systematize the science of geography in its practical application, and to bring within popular comprehension the fact that this science lies at the basis of many of the sciences. The statement claims much for the man and for the science; it is a part of the purpose of this memorial of Henry Gannett to demonstrate its truth, both as to the man and the science to which he devoted his life with a tireless consecration. The other purpose is to pay affectionate tribute to a friend of long years' standing, a citizen who lived a life of modest and earnest usefulness, a public official whose personality, zeal, and devotion contributed so unstintingly to the splendid success of the National Geographic Society throughout the twenty-eight years of its existence. The writer has known Henry Gannett since we were fellow-workers in the Federal Census of 1880. We were associated in the two subsequent censuses and in the permanent Census Office. I write, therefore, as a friend who had exceptional opportunity to know the method and the quality of his work, and to study his personal character. He had laid the enduring basis of his reputation before we met, and it was as a topographer that he left his chief impress upon the history of

geographical science in the United States. But it was the rare combination of the topographer and the statistician which made his work so unique and so constructive—a combination not found in any like degree in any of the scientists with whom he worked side by side in those early days.

Born in Maine on August 24, 1846, the son of Michael Farley and Hannah Church Gannett, of rugged Anglo-Saxon stock, Henry Gannett took his degree as bachelor of science (equivalent to the present degree of civil engineer) at the Lawrence Scientific School of Harvard in 1869, and his degree as mining engineer at the Hooper Mining School in 1870. At Cambridge he was a contemporary of Dr. F. W. Clarke of the Geological Survey and Dr. Charles E. Munroe of the George Washington University, with both of whom he touched elbows during the rest of his life. He was for a brief period assistant in the Harvard Observatory, and accompanied Professor Pickering to Spain in 1871, to observe the total eclipse of the sun in that year. Upon his return he received an appointment as astronomer in Captain C. F. Hall's North Polar Expedition of 1871; but there came simultaneously an invitation to join the United States Geological and Geographical Survey of the Territories under Dr. F. V. Hayden, and this latter offer appealing more to his taste and education, he came to Washington. He was appointed topographer for the western division of the Hayden Survey, and continued actively in that work until 1879, when the Hayden Survey was merged in the newly created United States Geological Survey.

It was hazardous work and appealed to the adventurous spirit. It carried the hardy young engineer into regions where the foot of white man had never before trod; across mountain passes and torrential rivers; among wild Indian tribes often on the war-path.

He first discovered and christened many a mountain peak and hidden lake; he was one of the first to ascend Mt. Whitney, the highest peak in the United States outside of Alaska; and it was in recognition of his intrepid pioneer work that his associates christened the highest peak in the Wind River range in Wyoming "Mount Gannett." There were hairbreadth escapes and great physical fatigues, calling for dauntless courage and great endurance.

Thus Henry Gannett had his schooling in American geography at first hand, and thus he learned how to write it down in the reports and maps which today completely reveal its physical characteristics. He was a pioneer explorer and topographer of great sections, more particularly Colorado and Wyoming, of the vast empire which the Louisiana Purchase added to our national domain. It was a region filled with geologic wonders and unmeasurable industrial possibilities, which appealed equally to the imagination and the practical turn of the young engineer's mind.

Dr. Gannett's first report, on Central Colorado, appeared in Dr. Hayden's Seventh Annual Report (1873), and other reports followed in each subsequent report of that survey. His final report (1878) described the geographical field work in the Yellowstone Park, which he first surveyed. Among the bulle-

tins and miscellaneous publications of the Survey are his notes accompanying his Contour Map of the United States (1879), his lists of elevations in the United States west of the Mississippi River (1873), and his additional lists of elevations (1879).

The quality and accuracy of his work brought young Gannett to the immediate attention of all the men in charge of the several Government surveys which shared the earlier topographical and geological work of the Government.

In 1879 the long agitation for the unification and consolidation of the Government survey work came to a head. Criticism of the then existing system, which was in reality no system at all, had long agitated the scientists. This work was then divided among no less than five distinct organizations, no one of which had by law any harmonious relations with the others: the Hayden Survey, the Wheeler Survey west of the one hundredth meridian, the Clarence King Survey, the J. W. Powell Survey, and the Coast and Geodetic Survey. There was much overlapping of work and a constant clashing of plans between these surveys, each independent of the others. Their results were based upon different units of measurement, impossible of co-ordination and often in conflict. The surveys were in a sense competitive, at least in their efforts for congressional support, and in the jealousies and frictions which resulted. It was clearly not a good arrangement, from either a business or scientific point of view. The consolidation was strongly favored by the National Academy of Sciences, and more vigorously opposed by the War Department,

but it won on its merits. The consolidation was inspired by the conviction that the nation had a priceless heritage in the ownership of these vast regions, and a supreme national duty to perfect the legislation under which they were to be opened up to make homes for the teeming millions then pouring hitherward from the old world.

And thus was born the United States Geological Survey of the present day (which should have been named the Geological and Geographical Survey). This legislation was the most significant of the many events which have gradually made the National Capital the chief scientific center of the United States. While the Smithsonian Institution was already conspicuous, at home and abroad, as the representative scientific foundation of the country, the real beginnings of Washington's pre-eminence as a scientific center can be traced very largely to the geographical and geological students and explorers employed in one or another of the five surveys, and many of whom remained with the new survey. They included, with some who came in a little later, Dr. W. H. Holmes, head curator of the National Museum; Professor A. H. Thompson, Dr. Charles D. Walcott, Dr. William H. Dall, Professor F. W. Clarke, Grove K. Gilbert, Dr. A. C. Peale, Frederick H. Newell, Dr. C. Hart Merriam, Dr. George P. Merrill, J. H. Renshaw, A. D. Wilson, Marcus Baker, Bailey Willis, Gilbert Thompson, Arnold Hague, S. F. Emmons, George F. Becker, Raphael Pumpelly, and John M. Coulter.

Dr. Gannett's appointment in the new survey bore

date of October 8, 1879, but by transfer to the Census Office his first service was as geographer of the Tenth Census. At the conclusion of that service, Director Powell appointed him Chief Geographer, effective July 1, 1882.

His first report to Major Powell was dated June 30, 1883, and these reports were annually continued until his temporary separation from the Survey in 1902, to serve as assistant director of the Philippine Census.

The topographical work of the Government really dates from Dr. Gannett's appointment as Chief Geographer. Most of the surveys of his predecessors had been preparatory, and in the nature of reconnaissance. As Chief Geographer, Dr. Gannett determined the principles and methods upon which the surveys have since been carried on; he selected the sections to be surveyed and the points of departure; organized and instructed the parties sent into the field; inspected their work in the field, from summer to summer, and supervised the conversion of their field notes into the topographical maps of which he designed the plan. Thus it was that he came to be called "the father of American map-making." The system of topography he built up is recognized in other countries as the equal of any, and remains practically unchanged. In 1887 he began the use of the plane-table for platting roads, etc., in the field, using vertical angles for carrying along elevations. In 1891 he began the use of the traverse by transit and steel tape for primary control in place of triangulation in level country; and about the same time he began the present method of final contouring in the field instead

of compiling the final map in the office from field notes. All these improved methods contributed to quickness, accuracy, and economy in the work. His work commanded such wide approval that new legislation extended the topographical survey from the public domain, to which it was confined when the Survey was organized, to cover the entire United States. Some forty per cent of this gigantic undertaking was completed under Dr. Gannett's direction, during a period of about twenty-five years. I believe that there exists no record, in any department of the Federal Government, of a work of equal scientific importance, covering a like period of time, and inspired and controlled by one master spirit. Henry Gannett's hall-mark is indelibly written upon the topographical history of our country.

Mr. Gannett's second important service to the science of geography was in connection with the decennial censuses. So far as we know, he was the first American to discover that topography and statistics are twin sisters of science. In the earlier decades it does not appear to have been understood that geographical science is at the root of an accurate and satisfactory census. General Francis A. Walker came to realize it when superintendent of the 1870 census. When he organized the centennial census of 1880, one of his first steps was to invite Dr. Gannett to become its geographer. Thus began an intimate scientific comradeship and personal friendship which survived until General Walker's death. At that census every enumeration district in the United States, some 2,000 in number, was for the first time defined in advance for the guidance of the enumerator.

This was one of many distinctive features of that census by which Dr. Gannett's knowledge and intuitive statistical sense improved and strengthened it. Another was his rearrangement of the geographical division of the United States, which had long outgrown that utilized in the text books. His regrouping and rechristening of these divisions still stands in every geography. Still another was his rectification of the areas of the States, which involved many surprising reductions and additions in both the old and the new States.

Dr. Gannett developed to its present high degree of effectiveness the graphic method of presenting the results of statistical inquiries. This art, invented by European statisticians, was first used for statistical purposes in America in the Statistical Atlas of 1870. It remained for Dr. Gannett to make the widest and most effective application of the method in the Statistical Atlas of 1880, published by the Scribners.

This volume marked a new epoch in statistical cartography. Associated with Dr. Gannett in its preparation was Fletcher W. Hewes, who undertook the original preparation of the material, Dr. Gannett writing the text and revising, editing, and extending the plates. Together they succeeded in symbolizing, by means of "black and white" and colored diagrams and charts, every branch of inquiry covered by that census. No statistical atlas before or since, compiled in any country, has covered so wide a variety of topics.

Dr. Gannett was also the geographer of the Eleventh and Twelfth Censuses, ably assisted in the latter, during his absence in the Philippines, by his understudy, Mr.



A NOTABLE GATHERING ON THE STEPS OF HUBBARD HALL.

President Henry Gannett (1), Robert E. Peary, discoverer of the North Pole (4), and Roald Amundsen, discoverer of the South Pole (3), J. J. Jasseraud, the French Ambassador (2), James Bryce, the Ambassador from Great Britain (5), the Attorney-General, George W. Wickersham (13), the Minister from Norway (14), Hiram Bingham, leader of the Yale-National Geographic Society Expedition to Peru (16), Officers and Board of Managers of the National Geographic Society: Colonel Henry F. Blount (6), Dr. Alexander Graham Bell (7), Mr. John Jay Eason, Treasurer (8), Rear-Admiral John E. Pillsbury (9), Gilbert H. Grosvenor, Director and Editor National Geographic Society (10), George Otis Smith, Director U. S. Geological Survey (11), Rear-Admiral C. M. Chester (12), O. H. Tittmann, Vice-President, and Supt. U. S. Coast and Geodetic Survey (22), L. A. Bauer, Director Dept. of Terrestrial Magnetism Carnegie Institution (15), Franklin K. Lane, now Secretary of the Interior (18), Rudolph Kaufmann, Managing Editor Washington "Evening Star" (20), Brigadier-General John M. Wilson, former Chief of Engineers, U. S. A. (21), C. Hart Merriam (29), Charles J. Bell, President American Security & Trust Co. (23), David Fairchild, Agricultural Explorer (24), George Shiras III, former member of Congress and wild game photographer (25), John Over La Grange, Vice Editor NATIONAL GEOGRAPHIC MAGAZINE (26), George R. Putnam, U. S. Commissioner of Patents (27), Frederick B. Fiedlerberger, Assistant Treasurer National Geographic Society (28), Frederick V. Corliss, President Washington Academy of Sciences (31), Dr. S. N. D. North (32), T. L. Macdonald, M. D. (33), Edwin F. Grosvenor, Special Assistant to the Attorney-General (30), Peter Snyresant Pilot (37), and Julien A. Ripley (19) of New York.

Charles S. Sloane, now Geographer of the permanent Census Office.

By his ingenuity in visualizing statistical results in many combinations, and the use of a variety of symbols devised to meet special conditions, he brought all branches of statistics within the ready comprehension of the people, and enormously increased their usefulness, particularly in schools, colleges, and public lectures. He thus made possible the introduction and successful use of the lantern slide in the teaching and understanding both of geography and statistics. Nothing has since been developed in the graphic method which carries the art beyond his development of it. I recall a talk of his at the Cosmos Club many years ago, in which he lined the walls with colored drafts of the various symbols he employed, in an endless variety of combinations, suitable for any association of related data, and described the particular advantage of each in particular instances. I have often wished he had reduced that informal talk to writing, for I know of no treatise on the subject more illuminating than this lecture.

Dr. Gannett's subsequent census work was chiefly done as the Assistant Director, with Victor H. Olmsted, of the census of the Philippine Islands in 1902, of Cuba and Porto Rico in 1899, and of Cuba in 1906. The Philippine census, being primarily a war measure, was in charge of an officer of the army. In its statistical features it was largely the work of Dr. Gannett. The principal text of the report, together with the charts, diagrams, and maps, are his. In carrying for-

ward this work he penetrated with his associates among savage tribes never before seen by white men and into regions hitherto deemed inaccessible. This appealed to the spirit of adventure in him, which was a large element in his success in geographical field work.

In 1909 the Central American republics organized a plan for a joint census of these republics, which was officially communicated to the United States Government, with the request that it nominate a census expert competent to act as its director. The appointment was tendered to Dr. Gannett on the ground of his knowledge of the Spanish language and his census experience in Cuba, Porto Rico, and the Philippines. Differences and divisions among the authorities of these republics defeated the undertaking, after the nomination of Dr. Gannett had been accepted.

The United States Board of Geographic Names, now the Geographic Board, affords another illustration of Dr. Gannett's skillful adaptation of the science of geography to the purposes of government. It was originally an unofficial organization, brought together by Dr. Gannett and Dr. T. C. Mendenhall of the Coast Survey, and composed of ten governmental geographers, keenly sensitive to the confusion and contradiction in geographic names constantly appearing in governmental publications. President Harrison became convinced that their work should be officially confirmed. He issued an executive order on September 4, 1890, constituting the Board, and directing that all unsettled questions concerning geographic nomenclature and orthography, particularly upon the maps and charts of

the Government, be first referred to the Board, and that its decisions be accepted as the standard authority. Dr. Mendenhall was named as chairman, and served until he left Washington, in 1894, when Dr. Gannett succeeded him, serving as chairman of the Board while he lived. A few days before his death he was again elected president of the Board. To Secretary Sloane, who told him of the fact, he remarked that the Board should have selected a new president. When Mr. Sloane replied that the Board was earnestly unanimous in its desire that he continue, he replied: "You are determined I shall die in the harness, and I will."

When this Board was created, new counties and towns were being founded in the great West with an amazing rapidity. They were frequently christened on the spur of the moment, often in keeping with some individual caprice. The result was a rapidly increasing hodge-podge of geographical nomenclature. As an illustration of the work of the Board, it was directed soon after its official organization to determine upon several hundred cases of disputed names in Alaska, where the nomenclature, derived from native, Russian, Spanish, and English sources, was in great confusion. It appeared that nothing less than a complete revision of Alaskan nomenclature would remove this confusion. Differences only less confusing appeared in all parts of the country. Transliteration has everywhere been a fruitful source of differences in geographic spelling. The Board found hundreds of instances where the name of the post-office did not conform to the name given by local usage to the town in which the post-office was situ-

ated. Many cases existed where the same name had been given to two or more towns in the same State. Up to the time of its last report, the Board had decided 5,133 such cases. The rules outlined by the Board to govern its policy are simple, sensible, and conservative. They follow in the main the similar rules of boards and national geographic societies of Europe working for unification of geographic names in their several countries. This is one of the many ways in which geographic science promotes world civilization. Dr. Gannett did more work in this field than any other American.

Dr. Gannett took part in the forestry and conservation movements in the United States, both officially and through his personal association with those who first brought home to the public at large the national importance of the questions involved. His sympathetic interest and wise counsel were always counted on and were freely given while these questions were taking shape, and entitle him to remembrance as one identified with the small but ardent group of Government "conservationists," whose efforts in the latter part of President Roosevelt's administration inaugurated a new public policy.

His official activities in this field lay along three lines. As a geographer and statistician, both in the Geological Survey and in the Census, he had had to do with the gathering and compilation of data concerning forest resources and the lumber industry. When in 1897 the Geological Survey was by act of Congress assigned the task of examining and surveying the forest reserves which President Cleveland had set aside earlier in the

same year, Dr. Gannett was placed in charge of the examination work. In 1908, when President Roosevelt's Conservation Commission undertook to assemble authoritative data concerning the nation's resources, their use, and the probable future needs of the country, Dr. Gannett was selected to edit the report which presented the results of this epoch-making investigation.

National forestry became an important public question only after it had been clearly established that our national timber supplies were being drawn upon faster than replaced through natural growth; and the gathering and presentation of forest and lumbering statistics, in which Dr. Gannett was engaged before the conservation movement gathered headway, was therefore valuable pioneer work. Still more important was the work performed under his supervision in examining and reporting upon the forest reserves, which are now national forests. When first set aside, these forests, situated in mountainous portions of the West, were mainly wildernesses concerning which relatively little was known. It was necessary to ascertain the extent and character of their timber growths and the relative suitability of the lands which they included for forest purposes and for agricultural use, before a rational administrative policy could be developed and applied. Under Dr. Gannett the work of mapping the forest conditions and classifying the land was carried forward through a series of years, and the results were embodied in a number of Geological Survey reports which are still in many cases the most complete accounts of individual national forest areas.

As editor of the report of the National Conservation Commission, Dr. Gannett had charge of the most important stock-taking of national resources ever undertaken by any government. It was a "domesday book" of an entirely new order. The three volumes of this report furnished the basis for the formulation along constructive lines of public policies of far-reaching value, and the report itself became and continues to be a veritable arsenal of information on the topics covered.

Thus, within less than half a century after Henry Gannett began his topographical work on the millions of unsurveyed acres of our national domain, he was called to act as statistician of a Conservation Commission dedicated to the work of saving from spoliation the seemingly inexhaustible natural resources which his surveys opened up to settlement.

There remain to be mentioned the contributions which Dr. Gannett made, as a scientific investigator, to our knowledge of the natural causes which control forest distribution. It was doubtless his interests as a geographer which turned his mind to inquiries in this field. The results were presented in published papers which broke new ground regarding irrigation, precipitation, the relation between climatic conditions and the distribution of various Western tree species, and regarding the establishment of the natural timber line in this country. That he thus became a pioneer in the field of American forest geography is further evidence of his originality of mind.

Dr. Gannett was a voluminous writer on geographical, statistical, and inter-related subjects, and did much

to enrich the geographical literature of the world. Were it possible to compile a complete bibliography of his writings, it would represent many thousand pages of printed matter. It would include his reports as topographer of the Hayden and Geological Surveys; all his text contributed, much without signature, to three decennial censuses, and many census bulletins on special topics, published over his name; his constant contributions to scientific magazines and societies, which were in great demand, both in this country and in Europe; his contributions to American and foreign encyclopedias, which include the most important issued during a period of thirty years. Only with such a bibliography can one realize the tireless industry of Dr. Gannett's brain and pen. To fully appreciate it, one must understand that all these contributions were on highly technical subjects, many of them advancing new facts and ideas on controverted or unsettled questions.

He was the author of several books which hold a permanent place in geographical and statistical science. Among his earlier publications from the Survey were gazetteers of Massachusetts, Rhode Island, Connecticut, New Jersey, Kansas, Texas, Utah, Virginia, West Virginia, Maryland, the District of Columbia, Porto Rico, and Cuba. In 1893 he compiled his "Manual of Topographic Methods" (Monograph XXII), containing a complete description of the topographic work, instruments and methods of the Survey. His "Dictionary of Altitudes," first published in 1884, has passed through four editions. The above publications were incidental to his official work.

In 1895 Dr. Gannett compiled and published, in collaboration with Carl L. Garrison and Dr. Edwin J. Houston, a *Commercial Geography*, which was at once recognized as the standard American authority in this field, and is still extensively used in schools and colleges. In 1895 he published "*The Building of a Nation.*" The volume was based upon the census of 1890, and presented a complete and impressive picture of the growth, resources, present condition, and probable future development of the United States. By a coincidence, it appeared in the same year with Francis A. Walker's book of nearly the same title, "*The Making of the Nation.*" It might almost have been intended as a companion volume; General Walker condensed the political history and development of the country, in a popular and effective survey. Dr. Gannett supplemented this survey with a picture of the geography, topography, resources, commerce, revenues, industries, and wealth of the nation—a complete statistical photograph of the United States as it was, and is yet to be. It was a unique and invaluable book.

Later, in 1898, his "*United States*" was published in London as Vol. II of "*Stanford's Compendium of Geography and Travel.*" This was largely an elaboration of the previous volume. Some day some American geographer may be inspired to bring these books up to date, for the service of millions of pupils in schools and colleges.

In the last chapter of "*The Building of a Nation,*" under the title, "*A Forecast of the Future,*" Dr. Gannett ventured a series of prophecies, some of which



THE HOME OF THE NATIONAL GEOGRAPHIC SOCIETY

are interesting revelations of his views on live questions of the present day. "The utter savagery and folly of the spoils system will be thoroughly realized long before our second century has passed," is one of them. Others follow: "The time is near at hand when immigration will be closely restricted, and only the intelligent and industrious of Europe will be allowed to make their homes with us." * * * "With the restriction of immigration and the exclusion of its worst elements, the trades unions, whose members are almost wholly of foreign birth or parentage, will disappear from our midst." * * * "The restriction of immigration will greatly check the foreign additions to our numbers, but their places will be filled by our own flesh and blood; and the natural increase, which has been depressed by the flood of immigration, will quickly recover its normal rate. With this restriction, also, illiteracy will rapidly disappear." * * * "As manufactures extend in the South and the whites leave the farms for the city, their places will be taken by the colored people, who will thus become the farmers of that section. The colored people will also become the land-holders of the South and will produce the cotton of the world." * * * "The position of woman in the future, already foreshadowed, will be realized. She will no longer be secondary to man, but his equal, or rather his supplement. Among other things, she will naturally assume her share in those great corporations known as municipal, State, and national governments." * * * "Prominent among the improvements we are destined to make will be the simplification of our language; phonetic spelling and a

simple, consistent grammar are only a question of time."

* * * "For centuries to come the United States can supply the whole world with fuel without depleting her resources of coal."

These sentences are culled at random from Dr. Gannett's "Forecast," because they at once illustrate his terse simplicity of style and reveal some of his advanced views. So far as we can yet judge, his prophetic instinct was not at fault.

Certain features of all these volumes impress the reader. Perhaps the most significant is the fact that Dr. Gannett never used a superfluous word—I mean it literally; he was a literary trip-hammer. Both his character and his training seem to have inculcated a contempt for mere rhetorical effort in driving home the significance of what he was saying. There was the fact, often a novel and extraordinary fact. He stated it clearly and left it; let the reader make the most of it. In like manner all his writings lacked what we may call the personal flavor. He never made reference to his own contributions to geographical and statistical science. He shrank instinctively from anything like self-advertising.

Dr. Gannett was one of the half dozen men who conceived the plan of organizing the Cosmos Club, the prime purpose of which was to bind the scientific men of Washington by that social tie which promotes solidarity and mutual sympathy. Among those who joined him in 1878 in signing the articles of incorporation were Major Powell, Theodore Gill, Major Clarence E. Dutton, and Garrick Mallery. Major Powell was its

first president, and in 1897 Dr. Gannett was elected president. Of the ten incorporators, Dr. Gannett was the last survivor. The Cosmos Club was a scion of the Philosophical Society, well remembered by our elder scientists as their only point of personal contact.

It has been seen that national geography was in its infancy when Dr. Gannett first began its study in 1871. The American Geographical Society, organized in New York in 1852, had done much important work from the beginning, as it continues to do. Dr. Gannett was long an associate editor of its *Quarterly Bulletin*. In the meanwhile there had been gathered in Washington the body of young men, some of whom I have named, intensely interested in the subject, who realized the need of closer co-operation among themselves and a common center for their activities.

In response to the call of Gardiner G. Hubbard, General A. W. Greely, J. R. Bartlett, Henry Mitchell, Professor A. H. Thompson, and Henry Gannett, thirty-three scientists met at the Cosmos Club on January 13, 1888, and organized the National Geographic Society. Mr. Hubbard was elected the first president, and Mr. Gannett was one of the Board of Managers and the Recording Secretary. He continued to serve the Society as manager, treasurer, vice-president, and president as long as he lived.*

The Society was not founded as a rival of the American Geographical Society, but rather to establish a local

* The presidents of the Society and the length of their service have been as follows: Gardiner G. Hubbard, 1888-'97, ten years; Alexander Graham Bell, 1898-1903, five years; W J McGee, 1904, one year; Willis L. Moore, 1905-'09, five years; Henry Gannett, 1910-'14, five years.

bond for the geographers resident in Washington. It was christened the National Society because it was located at the National Capital; but the name was also intended to be significant of the whole national field which it has since occupied. Its growth at first was slow, its quarters were cramped, its membership small. The magazine it established was largely technical, and appealed to the professional geographers. Its publication was continued at a financial loss. Thus the Society struggled along for ten years, when Alexander Graham Bell's idea of utilizing the magazine for the purpose of popularizing the science of geography, of making it an instrument to appeal to the human interest, as well as a source of income to the Society, took form and substance. Under the editorship of Gilbert H. Grosvenor the magazine was converted into a powerful popular agency for "the increase and diffusion of geographic knowledge"—the purposes to which the Society had dedicated itself in its charter. So admirably has the plan been worked out by Mr. Grosvenor that the struggling technical journal has grown like Jonah's gourd. Today it is at once the most popular magazine in the world, judged by its enormous and steadily increasing circulation, and the greatest agency for creating a knowledge of and a love for geography as a humanizing science, brought to the fireside by the best material that travel, research, and exploration can supply, by pictorial and descriptive methods. It is unique in its character and in its success.

Carried forward on the wings of its magazine, the National Geographic Society now has a membership of



THE SPECIAL COMMITTEE OF THE NATIONAL GEOGRAPHIC SOCIETY WHICH EXAMINED AND VERIFIED
THE RECORDS OF PEARY'S DISCOVERY OF THE NORTH POLE

Mr. Henry Gannett, Chairman (1), Admiral C. M. Chester (2), and Mr. O. H. Tittmann (3). The others present are Robert E. Peary (4), Willis L. Moore (5), and Gilbert H. Grosvenor (6).

850,000, in all countries of the globe, and a large revenue, a considerable portion of which is dedicated to the actual work of geographic research. So soon as it was seen that such a revenue was to be increasingly available, the Society organized its Research Committee, of which Dr. Gannett was the chairman, and he continued to serve until his death. Under the advice of its Research Committee, the Society sent expeditions to study the volcanoes of Mt. Pelée and La Soufrière; aided the Peary Expedition which discovered the North Pole; studied the glacier system of Alaska, the results being embodied in the beautiful volume, "Alaskan Glacier Studies," by Professors Tarr and Martin, edited by Dr. Gannett and recently published; and has supported the Hiram Bingham expeditions making geographical, geological, and archæological investigations in Peru.

Behold how great a tree has grown from the little seed planted in 1888!

Mr. Gannett was chairman of the special committee of the National Geographic Society which examined and verified the records of Peary's discovery of the North Pole. The other members of the committee of the Society were O. H. Tittmann, Superintendent of the United States Coast and Geodetic Survey, and C. M. Chester, Rear Admiral United States Navy and formerly Superintendent of the United States Naval Observatory.

Dr. Gannett received the degree of LL.D. from Bowdoin College in 1899, in recognition of his service to geographic science. He was a corresponding member

of the Royal Geographic Society, of the Scottish Society of Geographers, of the Geographical Society of France, and was the Secretary of the Eighth International Geographic Congress, held at Washington, in 1904. He was also the editor of the Proceedings of the Congress, which was published by the United States Government.

I have thus inadequately sketched the services of Dr. Gannett during the half century in which American geographical science has grown from humble beginnings to a development not surpassed elsewhere. For a quarter of a century he was a central figure in that development. During that long period he always worked in a spirit of complete sympathy and helpful co-operation with his fellow scientists, who respected the rare quality of his work while he lived and recognize a personal loss in his death.

It remains to speak of Henry Gannett the man. To those who knew him intimately, his personality stands out with rugged lines of strength, yoked with attributes which commanded admiration and affection. To the world at large, his striking traits of character were only dimly revealed. It was always difficult, even for his intimates, to induce him to speak of his own work and achievements; he held a wholly inadequate idea of their permanent importance. He preferred to talk in appreciative terms of what his fellow scientists were doing; he was modest, unassertive, even to a fault.

Profound in his convictions on all live questions, he never sought controversy; nor did he ever decline it,

when his convictions were affronted. It was this characteristic which attracted him to the late John Muir, on the Harriman Expedition, to the scientific success of which they were both contributors. He had a deep contempt for scientific charlatanism, and an unerring instinct in its detection. His convictions were founded upon the thoroughness of his own researches, which was the key to his methods of work. Between him and those whose ideals were the same there existed a kinship at once delightful and inspiring. His memory will be gratefully cherished by many of the scientists now winning their spurs at the National Capital, for the spirit of practical helpfulness which marked their personal relations. Quick to detect misdirected effort in any of his younger associates, he was eager to point out a waste of time and energy, and to reveal out of his long experience the pathway they could profitably follow. There are many among them who gladly acknowledge that his kindly counsels set their feet in the right ways. He seemed always to be thinking how he could help others, never how he could best help himself. This characteristic is especially dwelt upon in many of the letters received by his family since his death. We may truly be sure that if, while he lived, the quality of his work and the scientific disinterestedness of his services was not officially recognized in the degree of their merit—and such, indeed, was the fact—it was largely because of his own self-effacement.

Such was Henry Gannett: spotless in private life, gentle, modest, helpful, without jealousies or enmities, eager to befriend, with a consuming love for his great

science, an intense desire to promote and perfect it, and a tireless industry to that end. There are not many like him in all these respects; and because such men are rare, and because those who knew Henry Gannett best knew how rare a character he was, they welcome the opportunity to pay their unstinted tribute to the geographer, the statistician, and the man.

S. N. D. NORTH.

Tributes to Henry Gannett from His Scientific Associates.

ADDRESS OF DR. WILLIAM H. DALL AT THE FUNERAL,
IN HUBBARD MEMORIAL HALL, NOVEMBER 8, 1914.

We are come together to pay to our friend and comrade a tribute of affection and respect. His was no ordinary personality. True to the traditions of his forefathers and of the community from which he sprang, he fitted himself for the work of a pioneer. He added to the spirit of adventure the curiosity of the seeker of knowledge and the earnestness of the man of science. He became skilled in recording and lucid in expositing the knowledge gained by the severest of labors in the wilderness. To the present generation scenes of his early work belong to an old, forgotten, far-off time. The vast unpopulated spaces, the unscarred mountain slopes, the silent enmity of the watchful savage, belong to the past. To him they were a daily experience. Hunger, cold, fatigue, and danger were his companions, the harvest of knowledge his reward. He was not contented merely to garner it in. From his studies came new and graphic methods, making clear the teachings of experience. He became one of the little band of real geographers. The earth was his book, from which he translated for us the records of the unbounded past, and the promise of the future.

A great poet, dying unappreciated and prematurely, in a foreign land, was moved by his thwarted ambition to ask that this should be his epitaph:

"Here lies one whose name was writ in water."

The name of Henry Gannett is written on the peaks of the Rockies, on the plains of the far West, and the islands of the tropic seas. The record of his work in Cuba and the Philippines will form a bench-mark from which developing nations may measure their future progress.

This stately hall will carry his memory with that of its builders.

His kindly comradeship, his retiring modesty, his tireless industry, his pure life, will not be forgotten. Hidden behind the veil to which we all with measured and inevitable tread approach, worthy leader, good comrade, kindly friend, beloved and loving husband and parent, for a little time, farewell!



RESOLUTIONS OF THE BOARD OF MANAGERS OF THE NATIONAL GEOGRAPHIC SOCIETY.

The National Geographic Society has lost its honored President, Henry Gannett, after a devoted service to the Society, covering the whole period of its existence.

In his death the Society has lost one of its most enthusiastic supporters and one of its wisest counsellors. He was one of the six men who organized the Society, becoming its first Secretary, then its Treasurer, then its Vice-President, and finally, in 1909, its President, an

office he filled with honor to himself and credit to the Society to the day of his death. From the day of the Society's founding he was also a member of the Board of Managers, and for the last ten years of his life headed its Committee on Research.

In his death geographic science has lost one of its richest contributors. He was in large measure the father of Government map-making in the United States. As Chief Geographer of the United States Geological Survey for many years, as Assistant Director of the Philippine Census, as Assistant Director of the Cuban Census, as Geographer of the Tenth, Eleventh, and Twelfth censuses of the United States, as Statistician of the National Conservation Commission, and as Chairman of the United States Geographic Board, his contributions to geographic knowledge were of inestimable value.

We feel deeply the great loss our Society has sustained in Mr. Gannett's death, and extend to the members of his family our own as well as the Society's profound sympathy.

We have lost a valued friend, the community a most useful citizen, his family a devoted husband and father, and the cause of geographic science one who labored in its behalf with unflagging zeal, with unremitting energy, and with unusual success.



ASSOCIATES OF THE GEOLOGICAL SURVEY.

At a meeting at the office of the Geological Survey on Monday afternoon, November 9, 1914, to express sym-

pathy at the death of Henry Gannett, some of his old associates, F. W. Clarke, Arthur P. Davis, Morris Bien, George H. Ashley, and Alfred H. Brooks, spoke of Mr. Gannett's personal character and of his contributions to science, and the following resolutions were adopted:

We have met today to express our sorrow at the death of Henry Gannett, the first Chief Geographer of the United States Geological Survey and the leading geographer of the United States, and to pay tribute to his character and his work. When Mr. Gannett, in 1882, took charge of the work of the Survey's topographic branch he established the methods and fixed the standards that have since been followed in the great task of making the maps for a Government atlas of the United States, a task that will for many years continue to employ a large part of the energies of the Geological Survey. The general recognition of the high quality of the Survey's maps is itself a testimonial of appreciation of Mr. Gannett's work. These maps are in large part the products of field methods devised by him. He first used the method of sketching traverse work on the board graphically in the field and he established the present method of primary traverse. His "Manual of Topographic Methods" has been published in two forms by the Survey and is still a standard book of reference.

Mr. Gannett was a geographer in no narrow sense of the word; his interest in geography included such diverse subjects as forestry, rainfall, the profiles of rivers, the origin of the names of places and the historical detail of our national geographic expansion and of the determina-

tion of the areas and boundaries of the States, on all of which subjects he prepared reports that were published by the Survey.

His government work outside of the Survey, chiefly for the Census of the United States, the censuses of Cuba, Porto Rico, and the Philippines, and his services as Chairman of the United States Geographic Board and as Geographer of the National Conservation Commission, covered a wide field and showed large administrative power.

In Mr. Gannett's death the Survey has lost a man of broad view, wise initiative, and great service, and the science of geography has lost a master spirit. We tender to his family our heartfelt sympathy in their bereavement and feel that they may find consolation in the knowledge that his work for mankind was faithfully and well done.



THE TWENTY-YEAR SERVICE TOPOGRAPHERS.

At a special meeting of the Twenty-year Service Topographers of the United States Geological Survey, of which society Mr. Gannett was President for the year 1914, the following resolutions were adopted:

It is with deep sorrow that we learn of the death of Henry Gannett, the first active chief of the topographic branch of the United States Geological Survey. In him we of the older topographers particularly have lost not only a great leader, but a true and genial friend.

Mr. Gannett, immediately upon his assumption of the duties of chief topographer, in the early years of the

Survey, began the organization of the topographic branch. He set a high standard for topographic work and laid the foundation of a systematic survey of the country. He laid down the broad general lines upon which the work should be conducted, and which, as followed by his able successors, have led to its present development.

In Henry Gannett topographic work in America will miss a pioneer and a leader, the Geological Survey a broad-minded adviser, and its older members a beloved friend.



RESOLUTIONS OF THE UNITED STATES GEOGRAPHIC
BOARD.

Whereas, death removed on November 5, 1914, the chairman and the last of the original members of the United States Geographic Board, Dr. Henry Gannett, therefore, be it resolved:

1. Realizing keenly the void thus created in the Board, we, his colleagues, give this expression of personal appreciation of his charming qualities and the unflagging interest with which he served the Board from its beginning.

2. We will always recall with pride his contributions to cartography and statistics, and we join the scientists of Washington in deploring the loss of a brilliant and efficient officer, a rare organizer, a noted statistician, and a man alive with enthusiasm for the increase and diffusion of knowledge.

3. The members of the Board will always hold in memory Dr. Gannett's intelligent and zealous interest

in all its transactions, and unite in mourning the death of a good man, a warm friend, a wise counsellor, and a public-spirited citizen.

4. The Board sends to the beloved family of our dear colleague assurance of its profound sympathy in its affliction.



THE SOCIETY OF AMERICAN FORESTERS.

The Society of American Foresters expresses its profound regret at the death of Henry Gannett, an Associate Member of the Society since its foundation, and one of the pioneers in forest conservation in the United States.

As a geographer of wide experience and travel, he contributed largely to our knowledge of the forests of the United States and its possessions. His description and mapping of the early forest reserves led in large degree to an accurate knowledge of the national forests and their proper management.

He was one of the first to study the distribution of forests with regard to climate and to investigate their effect upon rainfall.

He was instrumental in organizing the collection and analysis of forest statistics, which brought out the economic importance of the lumber industry.

As Geographer of the Conservation Commission and Editor of its report, he helped to crystallize for the first time a comprehensive statement of the existing knowledge of the natural resources of the country.

By his death the Conservation movement has lost one of its earliest and most influential leaders and the profession of forestry a staunch supporter and warm friend. A man of high scientific attainments and greatly diversified activities, closely interwoven with the interests of foresters, his loss will be keenly felt, not only by members of the Society of American Foresters, but by all friends of forestry.



THE COSMOS CLUB.

At a meeting of the Board of Management of the Cosmos Club, November 9, 1914, the following resolution was unanimously adopted:

In the death of Henry Gannett the Cosmos Club has lost one of its most distinguished and respected members. As one of the founders of the Club and during many years' service as a member of its Committee on Admissions, of the Board of Managers, and later as President, he took an important part in determining the character of the Club and in the maintenance of its standards. Mr. Gannett's distinguished career as a scientific man, his extensive contributions to geographic knowledge, his wide understanding of economic problems, his democratic personality, his interest in all matters pertaining to the progress of civilization, and his sympathy with younger men, have always made him respected and honored by his associates. His death is to them a profound loss. They extend to his family an expression of their deepest sympathy.

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